

Observatory and Professor in the University which he had held for forty-three years, and with his wife retired to a country house near Ripon, which was named Clova in remembrance of a place in Aberdeenshire where Mrs. Smyth had spent part of her life. Here he continued his work with unflagging zeal, photographing the Solar Spectrum on a large scale with the help of the Rowland grating; he also secured a beautiful series of photographs of typical cloud formations. After the Professor's death the negatives of these latter photographs were generously presented to the Edinburgh Royal Observatory by Mr. W. B. Dunlop of Edinburgh.

In 1896 Mrs. Smyth, the faithful and indefatigable sharer of all his labours, succumbed to a long and painful illness. After her death the Professor led even a more retired life than before, though still occupied with astronomical problems.

He died at Clova on the 21st of February 1900, and was buried beside his wife in the churchyard of Sharow, a parish some two miles distant from Clova.

On glancing back at Professor Piazzzi Smyth's life, thus imperfectly sketched, one cannot but admire his indomitable energy and activity and the great versatility of his mind. He was a keen observer of Nature, and thanks to his skill alike with pen and pencil he succeeded in interesting a world-wide circle of readers in the objects in which he himself was interested. His contributions to sidereal astronomy, to mountain astronomy—to which he gave an impetus that cannot be over-estimated—and especially to spectroscopy will always secure him a high place amongst the scientific workers of the Victorian era. Though he was of a retiring disposition, those who came in contact with Piazzzi Smyth were attracted by the gentle amiability of his manner and by his readiness to impart full particulars of the investigation on which he happened to be engaged.

Professor Smyth was a Corresponding Member of the Academies of Science of Munich and Palermo, and a Fellow of the Royal Societies of London and Edinburgh. He received the honorary degree of LL.D. from the University of Edinburgh, and was elected Fellow of this Society as far back as 1846.

R. C.

JAMES HENRY YOUNG, a son of the late Captain J. H. Young of Jersey, was born at Gorey, Jersey, on the 23rd of January 1858. He was educated at the Victoria College, Jersey, and at the age of 18 entered the Civil Service in the Office of Works, in which appointment he continued up to the time of his sudden death on the 24th of September, 1900. He married in 1879 Miss Mildred E. C. Jerrold (a granddaughter of Douglas Jerrold), and leaves five children. He graduated as B.Sc. at the London University in 1892. He was accustomed to public lecturing, some of the titles chosen being "Star-myths and what has become of them," "Sun-spots," "The Earth's Future," "Sixty

Years of Astronomy," &c., &c. He was elected a Fellow of this Society on the 12th of May, 1893.

The two Associates whose loss the Society has suffered during the last year were near the two ends of the illustrious list. Robert Luther was one of the oldest, and Keeler one of the youngest. Keeler might well have been elected earlier on his merits, but there was a difficult preliminary question of procedure to be settled—viz. whether a Fellow of the Society was eligible as an Associate. (For Keeler was one of several eminent American astronomers whom we are proud to have as actual Fellows, having joined the Society on the 14th of March 1890.) In 1898 the Council decided this question in the affirmative, and forthwith Barnard, Burnham, and Keeler were elected Associates on the 9th of December 1898. The first two were already also medallists of the Society; and there can be little doubt that only his premature and lamented death robbed Keeler of a similar honour, for his work was brilliant in quality, and he was an untiring worker. For the following particulars of his life the Council is chiefly indebted to the sympathetic and able notice by his successor in the directorate of the Lick Observatory, Professor W. W. Campbell (*Astrophysical Journal*, November 1900), to which reference should be made for a fuller account.

JAMES EDWARD KEELER was born in La Salle, Illinois, on the 10th of September 1857, of a long line of New England ancestry. The family removed to Mayport, Florida, in 1869, and here Keeler not only prepared himself by private study for the university, but began his astronomical work. He drew the planets at a 2-inch telescope, and constructed a transit circle, rough in appearance, but, no doubt, capable of giving good results in the hands of its skilful maker. The circle was of wood, with a paper graduated scale, and the clock was a "small kitchen affair, and kept execrable time. It had no second hand. . . . A tall pine tree nearly on the meridian served for purposes of collimation" (*Pub. Ast. Soc. Pacific*, xii. p. 169).

Keeler entered Johns Hopkins University, Baltimore, in 1877, and graduated in 1881; but some weeks before taking his degree he was appointed assistant to Langley at the Allegheny Observatory. Langley was just starting for the summit of Mount Whitney to make his determination of the value of the "Solar Constant," and Keeler accompanied him on the expedition. His work for the next two years was concerned with the results obtained. He then spent a year in Europe, attending lectures in Heidelberg and Berlin on physics and mathematics, returning to the Allegheny Observatory in the summer of 1884 to help Professor Langley with his researches on the infra-red portion of the spectrum.

Early in 1886 Keeler was appointed assistant to the Lick Trustees, and, reaching Mount Hamilton on the 25th of April, he established the time-service more than two years before the

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